DT04 Rec'd PCT/PT0 1 4 OCT 2004

National phase of PCT/FI03/00292

IN THE CLAIMS:

- 1. (currently amended) A method for the removal of metal impurities in chloride-based copper recovery processes, characterised in that comprising removing the metal impurities are removed from a strong chloride solution of monovalent copper using chelating ion-exchange resins.
- 2. (currently amended) A method according to claim 1, eharacterised in that wherein there is a styrene-divinyl-benzene matrix of ring structure in the ion-exchange resin.
- 3. (currently amended) A method according to elaims 1 or 2, characterised in that claim 1, wherein the functional group of the ion-exchange resin is the iminodiacetic acid group.
- 4. (currently amended) A method according to elaims 1 or 2, eharacterised in that, claim 1, wherein the functional group of the ion-exchange resin is the aminophosphonic group.
- 5. (currently amended) A method according to some of the above claims, characterised in that claim 1, wherein

the metal impurity to be removed is one or more of selected from the group consisting of zinc, nickel, lead, iron and manganese.

- 6. (currently amended) A method according to some of the above claims, eharacterised in that claim 1, wherein the alkali chloride content of the strong chloride solution is at least 200 g/l.
- 7. (currently amended) A method according to some of the above claims, characterised in that claim 1, wherein the amount of monovalent copper in the solution to be purified is 30 100 g/I.

- 8. (currently amended) A method according to some of the above claims, eharacterised in that claim 1, wherein the removal of metal impurities is carried out in an acidic environment.
- 9. (currently amended) A method according to some of the above claims, eharacterised in that claim 1, wherein the removal of metal impurities is carried out in a neutral environment.
- 10. (currently amended) A method according to some of the above claims, characterised in that claim 1, wherein the copper-containing chloride solution that is the mother liquor in the resin is displaced before elution with an NaCl solution and that the alkaline solution to be used for regenerating the resin is displaced with an NaCl solution before the copper-containing chloride solution is fed into the resin.
- 11. (currently amended) A method according to some of the above claims, eharacterised in that claim 1, wherein the majority of the metal impurities in the strong chloride solution of monovalent copper are removed by hydroxide precipitation and the rest by using ion exchange.
- 12. (currently amended) A method according to claim 11, wherein characterised in that the metal impurities are removed by hydroxide precipitation to a content of 0.1 1 gil, after which the final purification is made using ion exchange.
- 13. (currently amended) A method according to some of the above claims, characterised in that claim 1, wherein impurities are removed from a strong chloride solution of copper by ion exchange at least to a level that corresponds to cathode copper LME-A grade impurity level.